repeats serine/threonine/proline rich region (STP) and, optionally, the adjacent signal peptide.--

R E M A R K S

This application has been amended in a manner that is believed to place it in condition for allowance at the time of the next Official Action.

In the outstanding Official Action, the Examiner objected to the title as not being descriptive of the subject matter of the present invention. Applicants appreciate the Examiner's suggestion for amending the title of the present application. In fact, the title of the present application has indeed been amended to recite a "Putative Porcine Homolog of Human Decay-Accelerating Factor".

The outstanding Official Action also stated that the figures of the present application contained several errors and required correction. Applicants respectfully request that the corrections to these drawings be held in abeyance until a Notice of Allowance is issued in the present application.

The outstanding Official Action also objected to the specification for referring to polynucleotide and polypeptide sequences by the name of the encoded protein or by the sequence without referring to a sequence identification number. In view of the present amendment, it is respectfully submitted that this contention is now moot.

The brief description of Figures 14 and 15 in the present specification have been amended to indicate which sequence identification numbers correspond to the sequences set forth in the figures.

In the outstanding Official Action, claim 18 was rejected under 35 USC §101 as allegedly being directed to non-statutory subject matter. This rejection is respectfully traversed.

Claim 18 has been amended to recite an "isolated cDNA molecule". Thus, it is respectfully submitted that the claimed invention does not read on a product of nature and satisfies the requirements of 35 USC §101.

Claim 18 was rejected under 35 USC §112, first paragraph, as allegedly containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor, at the time that the application was filed, had possession of the claimed invention.

The outstanding Official Action alleged that the phrases "a pig DAF gene", "gene", "genomic DNA", "corresponding to", "substantial", "a sequence substantially homologous to", and "a sequence...capable of hybridising to a substantial portion of a gene defined in (a) above" were not supported by the present disclosure. The Official Action alleged that the specification

did not adequately describe the broad subject matter which these phrases suggested.

However, claim 18 recites an isolated cDNA molecule encoding for a pig decay accelerating factor molecule, a molecule coding for a polypeptide having the sequence of sequence identification numbers 17-19, or a fragment of a molecule which encodes the first three short consensus repeats serine/threonine/proline-rich region (STP) and, optionally, the adjacent signal peptide. Support for the recitation that the cDNA molecule encodes for a fragment containing the short consensus repeats may be found on page 43, lines 20-25; page 44, lines 6-13; and Figure 15. As to the recitation that the cDNA molecule encodes for a pig decay accelerating factor molecule, support may be found generally throughout the specification and specifically in Figure 14. It is believed that the present disclosure conveys with clarity to one of ordinary skill in the art that at the time that the application was filed, Applicants were in possession of the claimed invention.

Thus, claim 18 has been amended so that the objectionable phrases are no longer recited. It is believed that the omission of these terms in claim 18 obviates the contention that the present disclosure does not provide an adequate written description of the claimed invention.

Claim 18 was further rejected under 35 USC §112, first paragraph, as allegedly being based on a non-enabling disclosure.

The Official Action alleged that the terms "DAF", "gene", "genomic DNA", "corresponding to", "substantially homologous", "capable of hybridising", "substantial portion", and "fragment" were undefined terms which encompass a very broad genus of nucleic acids. However, as noted above, many of these terms are no longer recited in claim 18.

While the term "fragment" is recited in claim 18, claim 18 recites that the fragment encodes specific portions of pig decay accelerating molecules. Thus, in contrast with the contentions of the outstanding Official Action, claim 18 does not read on any nucleic acid sequence, any single nucleotide, phosphate groups, or a single carbon atom. It is respectfully submitted that claim 18 is supported by an enabling disclosure.

Claim 18 was rejected under 35 USC §112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. In light of the present amendment, Applicants respectfully submit that claim 18 is definite to one of ordinary skill in the art.

The outstanding Official Action alleged that the phrases "a sequence substantially homologous to, or capable of hybridising to, a substantial portion of a gene defined in (a) above", "capable of", "substantial portion" and "a sequence substantially homologous to...a substantial portion of the gene defined in (a) above" were indefinite. However, as these phrases

are no longer recited in the claim, it is believed to be apparent that claim 18 is definite to one of ordinary skill in the art.

Claim 18 was rejected under 35 USC §102(b) as allegedly being anticipated by CARAS et al. This rejection is respectfully traversed.

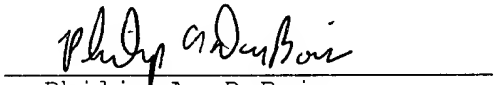
CARAS relates to a DNA sequence that encodes human decay accelerating factor protein. Claim 18 relates to a pig decay accelerating factor molecule. As CARAS et al. fails to disclose or suggest a pig decay accelerating molecule, it is respectfully submitted that the cited publication fails to anticipate or render obvious the claimed invention.

In view of the present amendment and the foregoing remarks, therefore, it is believed that this application is now in condition for allowance, with claim 18, as presented. Allowance and passage to issue on that basis are accordingly respectfully requested.

Attached hereto is a marked-up version of the changes made to the title, specification and claims. The attached page is captioned "VERSION WITH MARKINGS TO SHOW CHANGES MADE."

Respectfully submitted,

YOUNG & THOMPSON

By 

Philip A. DuBois
Agent for Applicants
Registration No. 50,696
745 South 23rd Street
Arlington, VA 22202
Telephone: 703/521-2297

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

The title has been amended throughout, declaration excepted, to the following:

--PUTATIVE PORCINE HOMOLOG OF HUMAN DECAY-ACCELERATING FACTOR-- [MODIFIED BIOLOGICAL MATERIAL]

Page 16, the paragraph beginning on line 1 has been replaced as follows:

--Figure 14 shows the nucleotide sequence of two different clones of pig DAF, i.e. pDAF-7 and pDAF-14 (SEQ ID Nos. 15 and 16). The pDAF-7 cDNA sequence corresponds to SEQ ID No. 15. The pDAF-14 cDNA sequence corresponds to SEQ ID No. 16.--

Page 16, the paragraph beginning on line 4 has been replaced as follows:

--Figure 15 shows the predicted protein sequence of pig DAF from the nucleotide sequences of clones pDAF-7 and pDAF-14 in Figure 14. It also shows the alignment of the predicted protein sequence of clone pDAF-7 in alignment with the protein sequence of human DAF (SEQ ID Nos. 17, 18 and 19). The pDAF-7, predicted protein sequence corresponds to SEQ ID No. 17. The pDAF 14 predicted protein sequence corresponds to SEQ ID No. 18. The sequence shown in alignment with human DAF corresponds to SEQ ID No. 19.--

Claim 18 has been amended as follows:

--18. (amended) [A DNA] An isolated cDNA molecule [selected from] encoding:

(a) a pig decay accelerating factor molecule [DAF gene or its complementary strand]; or

(b) [a sequence substantially homologous to, or capable of hybridising to, a substantial portion of a gene defined in (a) above;

(c)] a molecule coding for a polypeptide having the sequence of [Figure 15 (SEQ ID Nos. 17-19)] SEQ ID Nos. 17-19; or

[(d) a genomic DNA corresponding to a molecule in (a) above; or,

(e) a fragment of a molecule defined in any of (a), (b), (c), or (d) above]

(c) a fragment of a molecule defined in (a) or (b) above, said fragment encodes the first three short consensus repeats serine/threonine/proline rich region (STP) and, optionally, the adjacent signal peptide.--